

## How is sulfuryl fluoride performing as a methyl bromide alternative?

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### Abstract

This presentation will address the following areas for sulfuryl fluoride usage in post harvest disinfestations in the United States. Included is background experience, market growth, objective benefit, successful adjustments, determining effective dosage rate, and advancements.

We have worked with sulfuryl fluoride for 12 years. Starting with the first commercial post harvest fumigation in the US this activity has moved to treating grain, seed, mills and food processing and storages. Using a wide range of dosage rates and closely examining pre fumigation conditions, fumigation data, and post fumigation results successful treatments have been the result. This presentation will provide some of our findings during this period of discovery.

Sulfuryl fluoride was first commercially approved for post harvest use in the United States in May 2004. Since this release SF has been met with some resistance in certain markets and openly accepted in others. We will graphically show this annual progression within usage patterns.

For 5 years SF has defended its efficacy while largely ignoring strengths. The penetration capability of SF over that of methyl bromide has greatly improved balance of performance and cost. SF is not more difficult than the same methyl bromide application. The difference with SF is applicator awareness, observation, and recognition to detail is required to provide effectiveness and cost reduction.

Understanding strengths and weaknesses of SF developed efficacious and cost responsible dosage choices. Discussed will be methods to pinpoint a comparable SF dosage rate from field proven performance over 5 years.

Our industry has put SF under a microscope that never existed with methyl bromide. Benefits of this attention have provided unexpected results in forms of greatly improved gas monitoring technology and gas application instruments and equipment. This paper will provide dialog for how these advancements have improved safety, effectiveness, and a continued path for improvement.